

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,622,570 B1
APPLICATION NO. : 09/516327
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INVENTOR(S) : Paul S Prevey, III

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace text from Column 13, line 30 through Column 14, line 43 as follows:

1. (Currently amended) A method of reducing zones of high tensile stress in the surface of a part comprising the steps of:

selecting a region of the part to be treated; and

exerting a controlled variable pressure against the surface of the selected region, wherein the pressure being applied is precisely and constantly regulated by monitoring the pressure at every position of the selected region such that the magnitude of compression decreases in the direction towards the boundaries of the selected region in a controlled manner to minimize the effects of any tensile stress zones near the boundaries.

2. (Original) The method of claim 1 wherein the pressure being exerted against the surface of the part is performed by a burnishing operation.

3. (Previously Amended) The method of claim 2 wherein the burnishing operation includes varying the burnishing density to modify the magnitude of compression in the selected region.

4. (Original) The method of claim 1 wherein said pressure being exerted on the surface of the part induces a deep layer of compression within the surface having associated cold working of less than about 5.0 percent.

Signed and Sealed this
Twenty-eighth Day of August, 2012

A handwritten signature in black ink that reads "David J. Kappos". The signature is written in a cursive, flowing style with some loops and flourishes.

David J. Kappos
Director of the United States Patent and Trademark Office

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5. (Original) The method of claim 1 wherein said pressure being exerted on the surface of the part induces a deep layer of compression within the surface having associated cold working of less than about 3.5 percent.

6. (Previously Amended) The method of claim 1 wherein the step of selecting the magnitude of compression includes the step of programming a control unit to automatically reduce the magnitude of compression in the direction towards the boundaries of the selected region in a controlled manner.

7. (Previously Amended) The method of claim 1 wherein the step of exerting controlled variable pressure against the surface of the selected region includes the step of programming a control unit to control the application of said controlled variable pressure.

8. (Original) The method of claim 1 wherein the part is selected from the group consisting of automotive parts, aircraft parts, marine parts, engine parts, motor parts, machine parts, drilling parts, construction parts, and pump parts.

9. (Previously Amended) A method of reducing high tensile stress zones in the surface of a part comprising the steps of;
selecting a region of the part to be treated; and
programming a control unit of a burnishing apparatus to perform a burnishing operation, the burnishing operation being performed such that the density of burnishing, the magnitude of compression, and the pressure being applied against the surface are varied in a controlled manner to reduce the high tensile stress zones along the boundaries of the selected region.

10. (Original) The method of claim 9 wherein said burnishing operation induces a deep layer of compression within the surface having associated cold working of less than about 5.0 percent.

11. (Original) The method of claim 9 wherein said burnishing operation induces a deep layer of compression within the surface having associated cold working of less than about 3.5 percent.